

c) a reagent composition [for use in the detection of the test sample and sealed] within the sealed compartment, which composition consists essentially of and is selected from the group consisting of:

- i) a detergent-containing buffered solution to release adenosine triphosphate (ATP) [or alkaline phosphatase (AP)] from the test sample into the solution for testing; and
- ii) [a reaction stopping solution having a pH of 8 to 11; and
- iii)] a luciferin-luciferase [or phosphatase substrate] reagent [tablet].

4. (Twice Amended) A unit dose reagent [The] chamber [of claim 1] for use in a test apparatus for the detection of adenosine triphosphate (ATP) in a test sample, and wherein a moveable probe is employed to obtain a test sample and to release reagents from the reagent chamber to a test unit, which unit dose chamber comprises,

- a) a cylinder having a one open end and an other opposite open end;
- b) a probe-puncturable membrane seal over the one end and the other end of the cylinder to form a sealed compartment; and

c) a reagent composition within the sealed compartment, which composition consists essentially of and is selected from the group consisting of:  
wherein the reagent composition is selected from the group consisting of (i) a detergent-containing buffered solution to release adenosine triphosphate (ATP) from the test sample into the solution for testing; and (ii) a luciferin-luciferase reagent, and wherein the reagent composition includes a pH indicator.

5. (Twice Amended) In combination, the chamber of claim 1 in a test apparatus for the detection of adenosine triphosphate (ATP) [or alkaline phosphatase (AP)] in a test sample, wherein the reagent composition is a detergent-containing buffered solution to release adenosine triphosphate (ATP) from the test sample into the solution for testing, which test apparatus includes a luciferin-luciferase [or phosphatase substrate] reagent for reaction with the released adenosine triphosphate (ATP) [or alkaline phosphatase (AP)] in the solution.

7. (Amended) The combination of claim 5 wherein the test apparatus [includes] further comprises a closed bottom end, transparent test unit at the one end of the test apparatus, and wherein one or more unit dose reagent chambers are longitudinally positioned in the test unit.

10. (Three times Amended) The combination of claim 7 wherein the reagent composition is a detergent-containing buffered solution to release adenosine triphosphate (ATP) from the test sample into the solution for testing [sealed compartment comprises the buffered-detergent solution] and wherein said test apparatus includes a luciferase and a luciferin reagent [in tablet form] at the bottom end of the test unit.

12. (Twice Amended) The chamber of claim 1, wherein the reagent composition is selected from the group consisting of i) a detergent-containing buffered solution to release adenosine triphosphate (ATP) from the test sample into the solution for testing; and ii) a luciferin-luciferase reagent, and wherein the reagent composition includes a biological buffer solution to optimize a reaction for the detection of adenosine triphosphate (ATP) [or alkaline phosphatase (AP)].

14. (Three times Amended) A test apparatus for the detection of adenosine triphosphate (ATP) [or alkaline phosphatase (AP)] in a test sample, by luminescence [or color], which test apparatus comprises:

- a) a longitudinal test apparatus housing having a one end and an other end;
- b) a moveable probe within the housing to collect a test sample and arranged to puncture a membrane seal;
- c) a transparent test unit having a one end and a closed bottom end extending from the one end of the housing for use in detecting luminescence [or color] in the test sample, and a first reagent [tablet] composition to detect adenosine triphosphate (ATP) [or alkaline phosphatase (AP)], by [color or] luminescence, at the closed bottom end; and
- d) one or more unit dose reagent chambers longitudinally-positioned in the test unit, which reagent chamber comprises:

i) a cylinder having a one open end and an other opposite open end;  
ii) a probe-puncturable membrane seal at and over the one end and the other end of the cylinder to form a sealed compartment; and  
iii) a second reagent composition for use in the detection of adenosine triphosphate (ATP) [or alkaline phosphatase (AP)] in the test sample and sealed within the sealed compartment, which reagent composition comprises a buffered solution to release adenosine triphosphate (ATP) [or alkaline phosphatase (AP)] from the test sample into the solution for subsequent reaction with the first reagent [tablet]composition.

17. (Amended) The apparatus of claim 14 wherein the test unit has an open top end [with threads] and a closed bottom end and is detachably [removedly, threadably] secured to one end of the test apparatus.

19. (Twice Amended) The apparatus of claim 14 wherein the sealed compartment comprises a buffer-detergent solution and a luciferase and a luciferin substrate, as a reagent [tablet], is at the bottom end of the test unit.

21. (Three times amended) A transparent test unit for use in a test apparatus, for the detection of a test sample, [adenosine triphosphate (ATP) or alkaline phosphatase (AP), and] which test unit comprises: a one [open] end; a closed bottom end; a probe-puncturable membrane over the one end; and the one end having means for detachably securing [threads for threadable attachment of] the test unit to the test apparatus, and the test unit having one or more [separate, longitudinally-aligned] unit dose reagent chambers, which unit dose chamber comprises:

a) a cylinder having a one open end and an other opposite open end;  
b) a probe-puncturable membrane seal over the one end and the other end of the cylinder to form a sealed compartment; and  
c) a reagent composition for use in the detection of [adenosine triphosphate (ATP) or alkaline phosphatase (AP) in] the test sample and sealed within the sealed compartment[, which

comprises a buffered solution to release adenosine triphosphate (ATP) or alkaline phosphatase (AP) from the test sample into the solution; and

d) a reagent tablet at the bottom end to detect the adenosine triphosphate (ATP) or alkaline phosphatase (AP) in the solution].

24. (previously added; amended) The apparatus of claim 19, wherein said luciferase and said luciferin reagent are in tablet form.

27. (New) A unit dose reagent chamber for use in a test apparatus for the detection of alkaline phosphatase (AP) in a test sample, and wherein a moveable probe is employed to obtain a test sample and to release reagents from the reagent chamber to a test unit, which unit dose chamber comprises:

- a) a cylinder having a one open end and an other opposite open end;
- b) a probe-puncturable membrane seal over the one end and the other end of the cylinder to form a sealed compartment; and
- c) a reagent composition within the sealed compartment, which composition consists essentially of and is selected from the group consisting of:
  - i) a detergent-containing buffered solution to release alkaline phosphatase (AP) from the test sample into the solution for testing; and
  - ii) a reaction stopping solution having a pH of 8 to 11.

28. (New) The chamber of claim 27, wherein the membrane seal comprises aluminum foil.

29. (New) The chamber of claim 27, wherein the reagent composition is a detergent-containing buffered solution to release alkaline phosphatase (AP) from the test sample into the solution for testing, and wherein the reagent composition comprises a phosphoric acid buffer and an anionic or non-ionic detergent.

30. (New) The chamber of claim 27, wherein the reagent composition is selected from the group consisting of (i) a detergent-containing buffered solution to release alkaline phosphatase (AP) from the test sample into the solution for testing; and (ii) a reaction stopping solution having a pH of 8 to 11, and wherein the reagent composition includes a pH indicator.

31. (New) In combination, the chamber of claim 27 in a test apparatus for the detection of alkaline phosphatase (AP) in a test sample, wherein the reagent composition is a detergent-containing buffered solution to release alkaline phosphatase (AP) from the test sample into the solution for testing, which test apparatus includes a phosphatase substrate reagent for reaction with the released alkaline phosphatase (AP) in the solution.

32. (New) The combination of claim 31, wherein the test apparatus further comprises a longitudinally moveable probe to puncture the membrane seals.

33. (New) The combination of claim 31, wherein the test apparatus includes a closed bottom end, transparent test unit at the one end of the test apparatus, and wherein one or more unit dose reagent chambers are longitudinally positioned in the test unit.

34. (New) The combination of claim 33, wherein the test unit has an open top end with threads and a closed bottom end, and the test unit is removably secured to one end of the test apparatus.

35. (New) The combination of claim 34, wherein the top end of the test unit is sealed with a probe-puncturable membrane seal.

36. (New) The combination of claim 32, wherein the test apparatus further comprises a threadable means to move the probe spirally and longitudinally to puncture the membrane seals.

37. (New) The chamber of claim 27, wherein the reagent composition is selected from the group consisting of i) a detergent-containing buffered solution to release alkaline phosphatase (AP) from the test sample into the solution for testing; and ii) a reaction stopping solution having a pH of 8 to 11, and wherein the reagent composition includes a biological buffer solution to optimize a reaction for the detection of alkaline phosphatase (AP).

38. (New) The chamber of claim 37, wherein the biological buffer comprises tris(hydroxymethyl)aminomethane (TRIS) or tricine.

39. (New) A test apparatus for the detection of alkaline phosphatase (AP) in a test sample, by luminescence or color, which test apparatus comprises:

- a) a longitudinal test apparatus housing having a one end and an other end;
- b) a moveable probe within the housing to collect a test sample and arranged to puncture a membrane seal;
- c) a transparent test unit having a one end and a closed bottom end extending from the one end of the housing for use in detecting luminescence or color in the test sample, and a first reagent composition to detect alkaline phosphatase (AP), by color or luminescence, at the closed bottom end; and
- d) one or more unit dose reagent chambers longitudinally-positioned in the test unit, which reagent chamber comprises:
  - i) a cylinder having a one open end and an other opposite open end;
  - ii) a probe-puncturable membrane seal at and over the one end and the other end of the cylinder to form a sealed compartment; and
  - iii) a second reagent composition for use in the detection of alkaline phosphatase (AP) in the test sample and sealed within the sealed compartment, which reagent composition comprises a buffered solution to release alkaline phosphatase (AP) from the test sample into the solution for subsequent reaction with the first reagent composition.

40. (New) The apparatus of claim 39 wherein the membrane seal comprises aluminum foil.

41. (New) The apparatus of claim 39 wherein the second reagent composition comprises a phosphoric acid and a detergent solution.

42. (New) The apparatus of claim 39 wherein the test unit has an open top end with threads, and a closed bottom end and is removably, threadably secured to one end of the test apparatus.

43. (New) The apparatus of claim 39 wherein the one end of the test unit is sealed with a probe-puncturable membrane.

44. (New) The apparatus of claim 39 which includes two sequential reagent unit dose chambers comprising: a first chamber containing the reagent solution to release phosphatase from the probe; and a second chamber containing a reagent for the detection of the phosphatase in the test sample.

45. (New) The apparatus of claim 21, wherein said means for detachably securing comprise threads for attachment of the test unit to the test apparatus.